

RAYMOND W. CLANTON

TECHNICAL STATEMENT

This Technical Statement has been provided for RAYMOND W. CLANTON, applicant for a new FM broadcast station to operate on Channel 279A in El Rio, California.

Channel 279A was allotted to El Rio as the result of a petition for rule making filed prior to October 2, 1989 and therefore, is considered "grandfathered" under Section 73.213(c) of the Commission's Rules. Such a "grandfathered" station may apply to operate a Class A station with no more than 3,000 watts effective power and a maximum height above average terrain of 100 meters, or equivalent lower power and higher antenna height, provided an antenna site is specified that is in accordance with the minimum distance separation requirements of Section 73.213(c)(1).

The antenna site proposed in this application is short-spaced under Section 73.207 of the Rules to Station KOST (FM), Channel 278B, Los Angeles. However, the proposed site is in accordance with Section 73.213(c)(1). In addition, the proposed antenna site complies with distance separations to Mexican stations and allotments as required in Section 73.207(3) of the Rules. The El Rio allotment has been accepted by Mexico (internationally) as a Class B station.

Average elevation in the area of the proposed antenna site was determined from the average elevations of eight radials drawn from the site to a distance of 16 kilometers on USGS 7½ minute topographical maps. The radials were spaced at 45 degree intervals beginning at true north. Individual radial elevations were determined by averaging a large number of equally spaced points between 3 and 16 kilometers.

An antenna height above average terrain of 246 meters is proposed. Equivalent maximum effective radiated power for this height is 0.478 kilowatts and was determined from Figure 1, Section 73.333 of the Rules by determining the power necessary to produce a 1.0 mV/m contour at a distance of 24 kilometers from the antenna site.

EXHIBIT E-4, PREDICTED SERVICE CONTOURS, indicates the 3.16 mV/m and 1.0 mV/m contours predicted according to conventional means by using the antenna height above average terrain of each radial together with the effective radiated power in association with the FM F(50,50) Field Strength Curves.

The boundary of El Rio indicated on EXHIBIT E-4 was determined from 1990 U. S. Census maps. El Rio is a census designated place and is completely encompassed by the predicted 3.16 mV/m contour.

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TECHNICAL STATEMENT continued

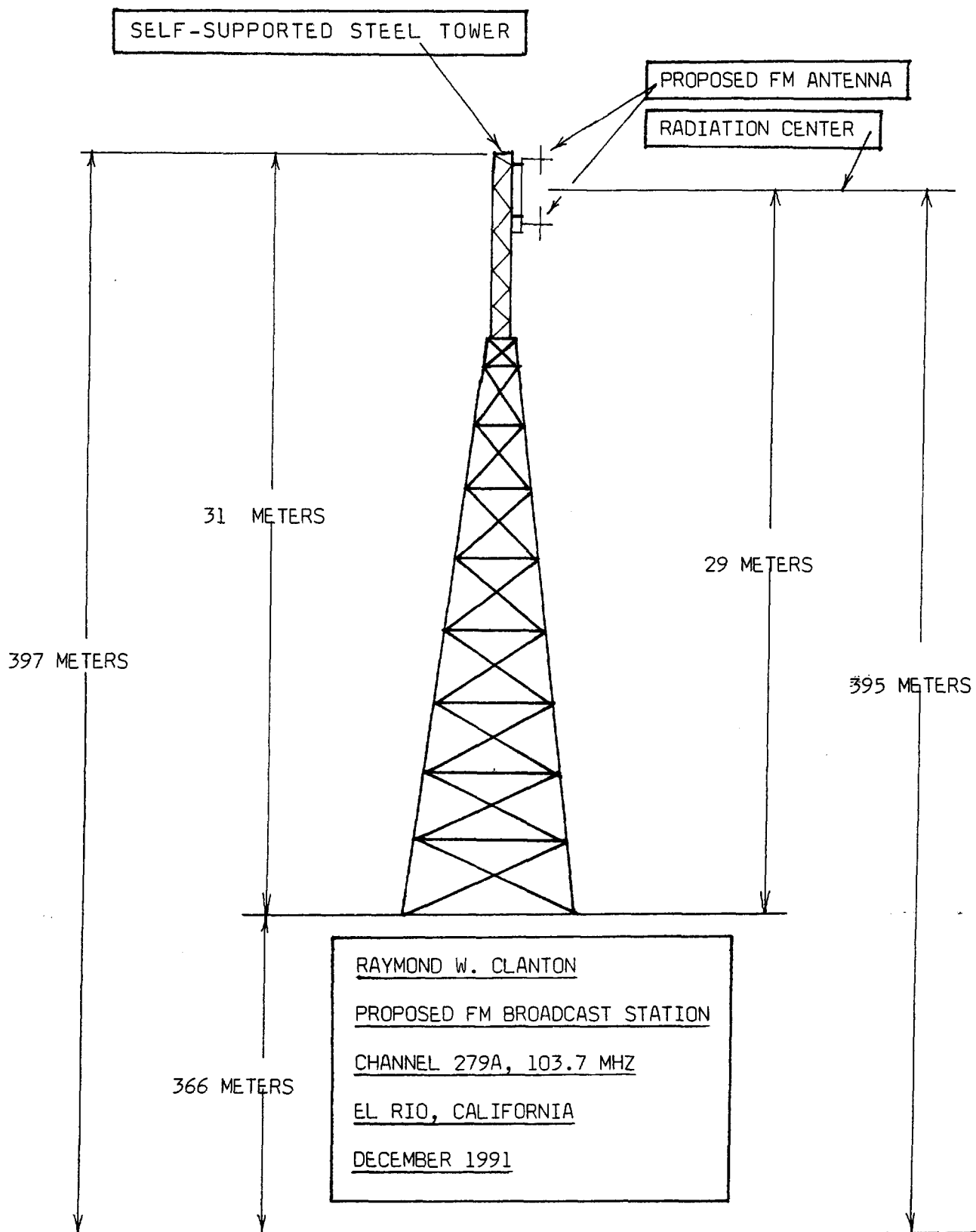
U. S. census data was used in determining population within the predicted 1.0 mV/m contour of EXHIBIT E-4. Population was computer-determined and was obtained from DATAWORLD.

Area of the 1.0 mV/m contour of EXHIBIT E-4 was determined by means of a polar planimeter and computation.

A single complete USGS topographical map of the area around the antenna site is attached to aid in verifying antenna site coordinates.

EXHIBIT E-1 - ANTENNA SUPPORTING STRUCTURE SKETCH

NOT TO SCALE



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EXHIBIT E-2

This exhibit is in response to item 14, Section V-B, page 3, FCC Form 301 (June 1989).

This application proposes to construct a new tower to support an FM transmitting antenna at an existing communications site. Television Station KSTV, Channel 57, Ventura, California operates from a location approximately 20 meters from that proposed in this application. In addition Radio Station KAGR (FM) operates from a location approximately 100 meters from this proposal. There are other industrial and two-way type radio stations. So far as is known, there are no established government receiving stations within the blanketing area. There may be commercial receiving stations within the blanketing area. The blanketing contour extends 0.272 kilometers from the proposed antenna. There are no populated areas within the blanketing area. There are other FM and TV stations within 10 kilometers of the site proposed here.

Problems of interference with existing users may be evidenced by receiver desensitization or the creation of spurious frequencies due to the mixing of the various frequencies. A possible remedy for such problems would be the use of traps and filters where necessary and the installation of a proper ground system for the proposed FM station.

Interference problems, though possible, are not expected because of the relatively low power specified for the station proposed here.

The applicant accepts responsibility for the elimination of any objectional interference to existing users of the site at the time of construction of the proposed FM station and will cooperate fully in solving such problems.

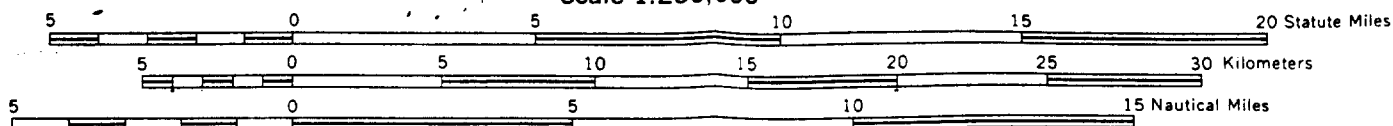
The applicant also accepts the responsibility for interference caused to consumer electronic equipment due to the proposed operation and will cooperate in solving such problems.

20'

34° 20' 00"

NIA

Scale 1:250,000



CONTOUR INTERVAL 200 FEET  
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

EXHIBIT E-4 - PREDICTED SERVICE CONTOURS



LOS ANGELES, CALIFORNIA

1975  
TOPOGRAPHIC-BATHYMETRIC

315°

0°

45°

TOPOGRAPHIC-BATHYMETRIC

315°

00

450

~~Carpinteria~~

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EXHIBIT E-5

This exhibit assesses the potential effects of human exposure to radio frequency (RF) radiation that would be emitted by the station proposed in the event that such station is constructed as indicated.

Equation 4 of Section II (Prediction Methods) of OST Bulletin No. 65 (October 1987) provides a simple method of predicting "worst-case" power density from a single antenna. Assuming that the total effective power of 956 watts as proposed herein, is radiated from the lower antenna element, a power density of 1 mW/cm<sup>2</sup> would not be exceeded at distances in excess of 5.75 meters from such antenna element. Therefore, it would be necessary that the antenna supporting structure be ascended for one to gain access to the area of potential danger. To prevent such unauthorized access, the antenna supporting structure will be properly fenced and signs warning of the potential danger will be prominently displayed. Power will be reduced as necessary to protect maintenance personnel.

The calculated "worst-case" power density at a point three meters above ground near the base of the proposed antenna supporting structure would be approximately 0.071 mW/cm<sup>2</sup>.

KAGR (FM) operates at a location approximately 100 meters from the site proposed herein. KAGR operates with a combined horizontal and vertical power of 840 watts. The distance is such and the operating powers so low of both KAGR and the proposed station that neither would add substantially to the power density at any point near ground between the two locations.

Television Station KSTV operates from a site approximately 20 meters from that proposed herein. Initial calculations indicate that KSTV is well within compliance. However, there are several variables that make an exact determination difficult. It is believed that KSTV is in compliance and that the radiation near ground level of the station herein proposed would not add substantially to the existing power density.

If the applicant is granted a construction permit to construct the proposed station, the power density at the site will be measured to assure compliance. It should also be pointed out that the site is not generally accessible to the general public. Arrangements will be made with the existing stations and the proposed station to reduce power as necessary to protect maintenance personnel.



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PROPOSED FM BROADCAST STATION

CHANNEL 279A, 103.7 MHZ

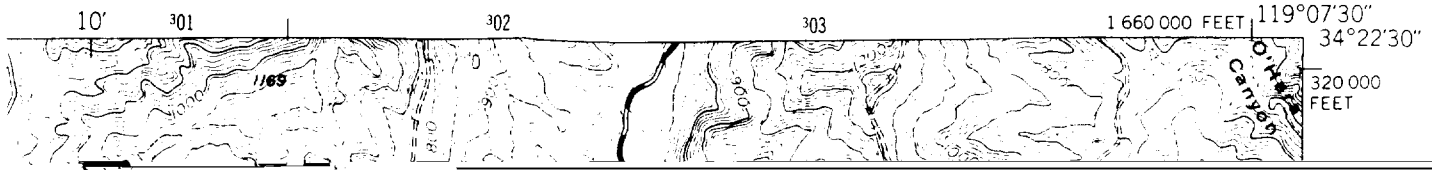
EL RIO, CALIFORNIA

DECEMBER 1991

SEPARATE FULL-SCALE TOPOGRAPHICAL MAP  
FOR SITE LOCATION VERIFICATION

SATICOY QUADRANGLE  
CALIFORNIA-VENTURA CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)  
SW/4 SANTA PAULA 15' QUADRANGLE

2152 1 NE  
(SANTA PAULA PEAK)



STATE OF CALIFORNIA  
REPRESENTED BY THE  
DIRECTOR OF PUBLIC WORKS

296

12'30"

298

2152 1 NW  
(OJAI)

299

300

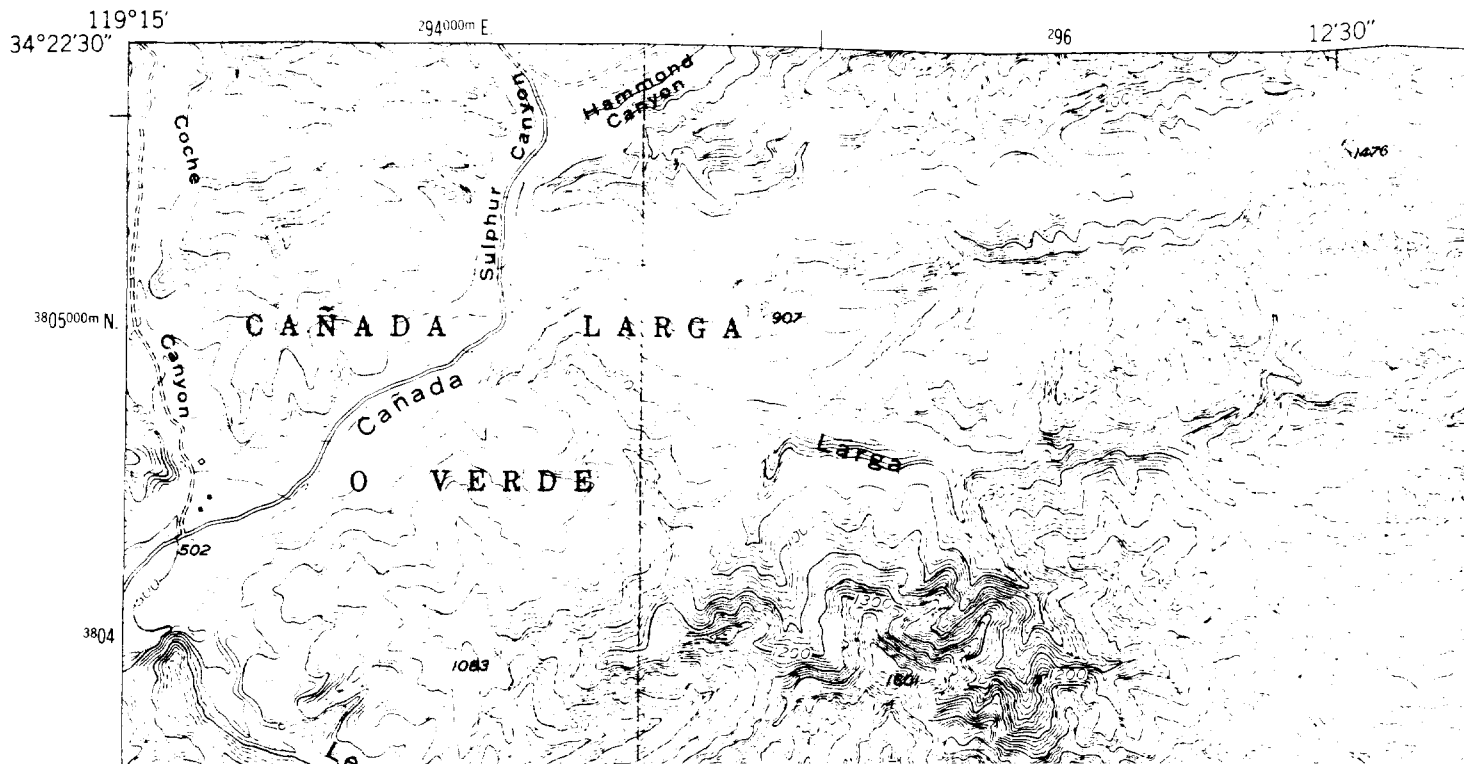
10'

1476

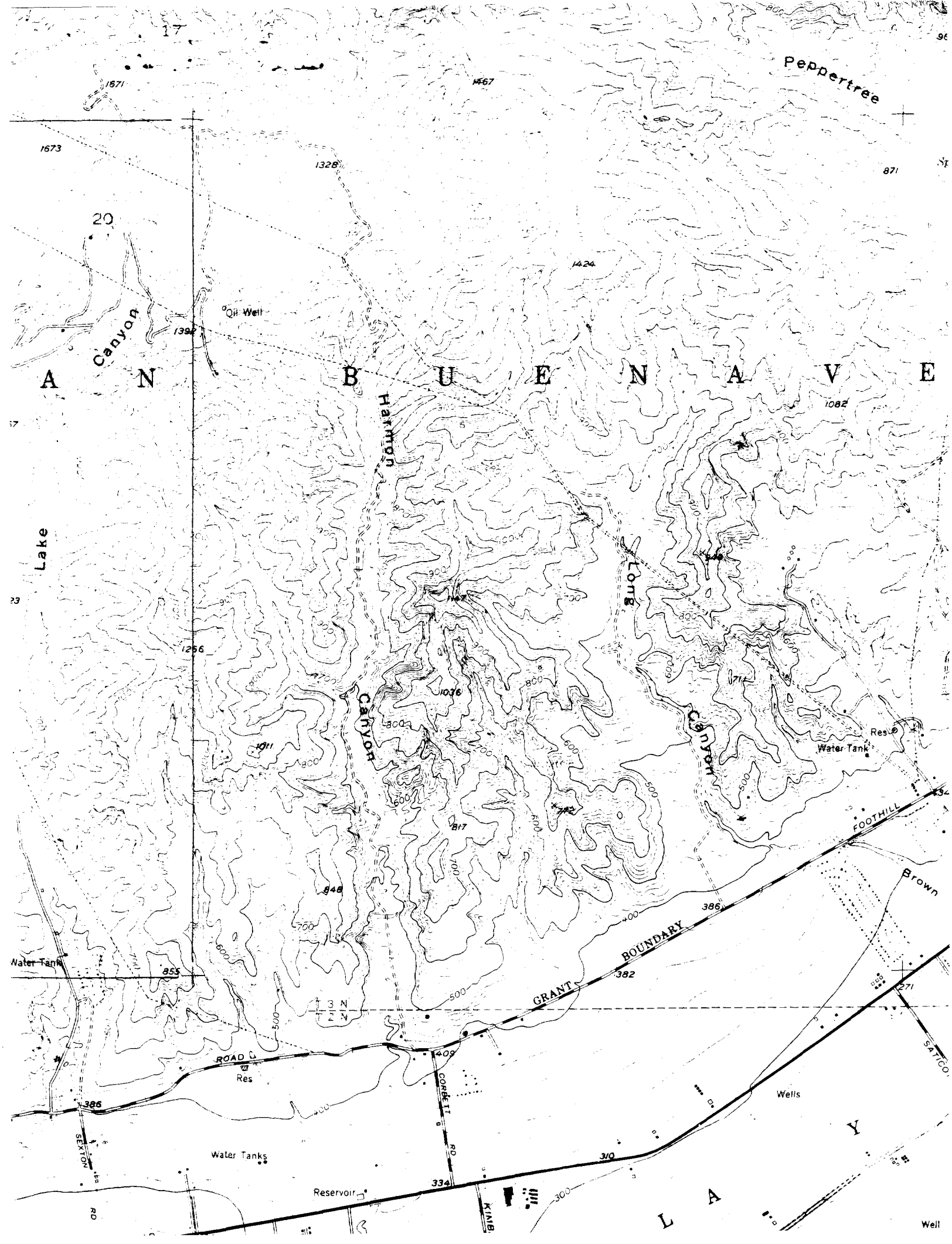
732

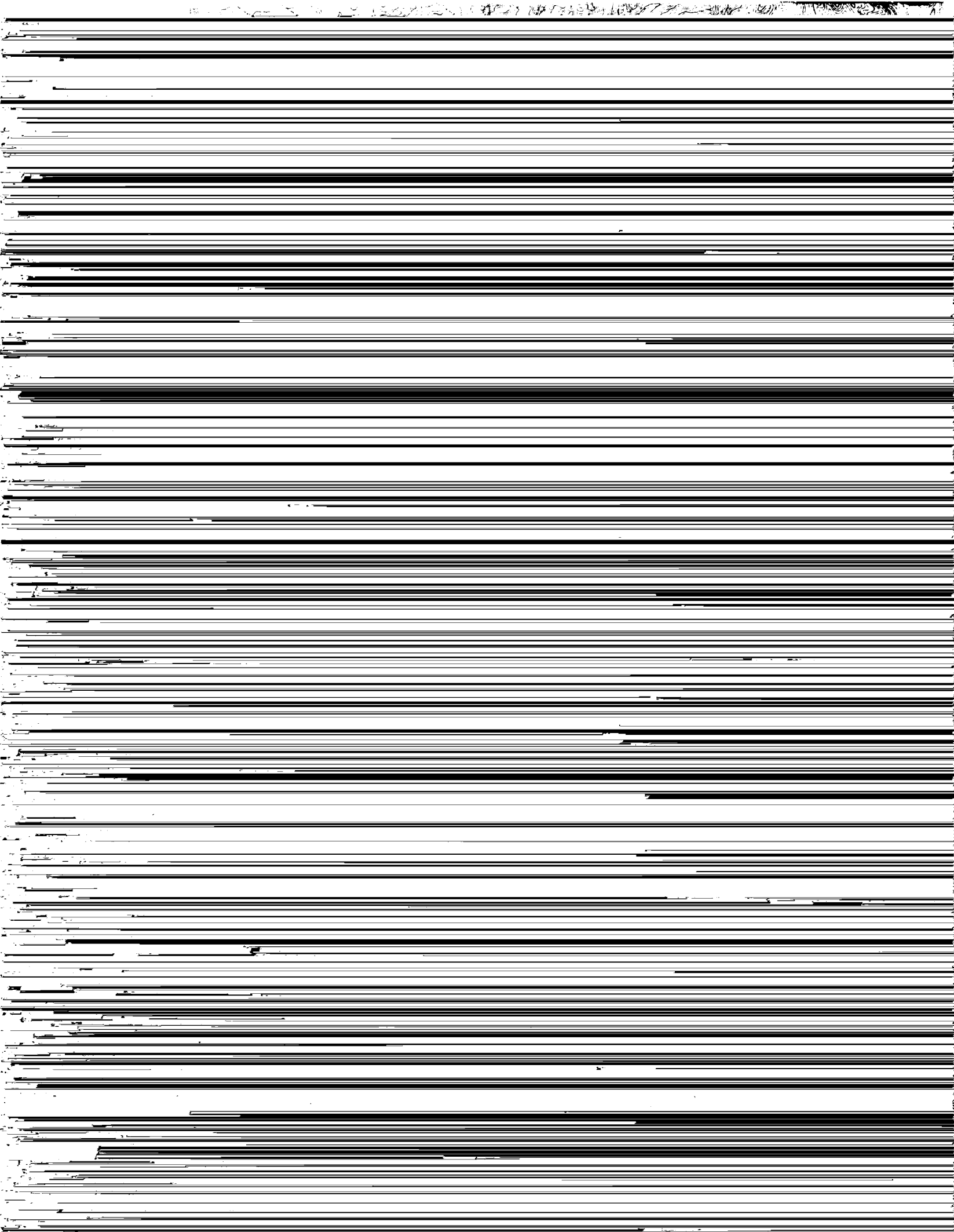
2152 IV NE  
(MATILAJ)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



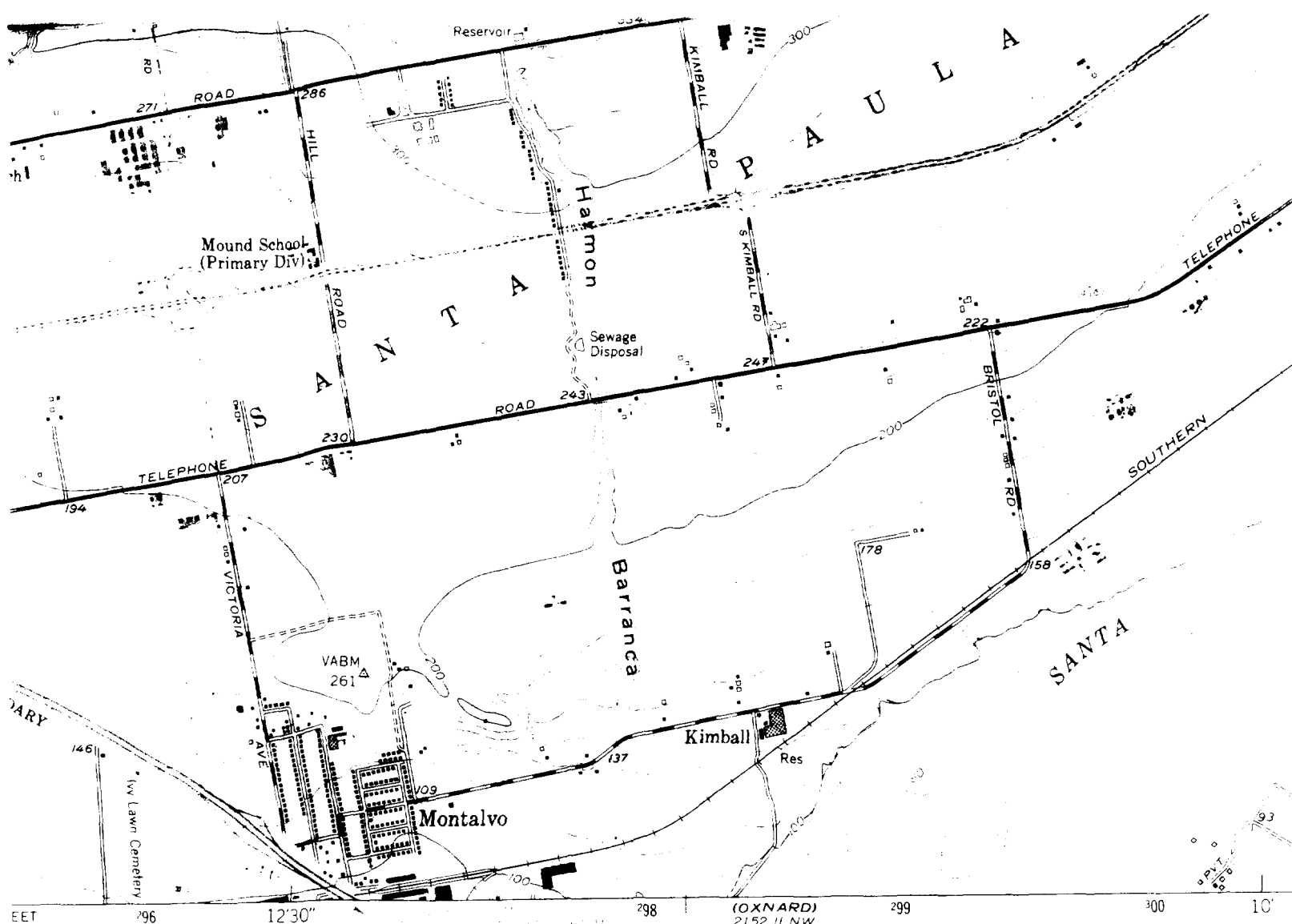




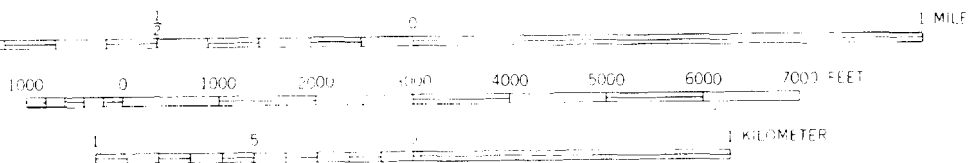








SCALE 1:24,000



CONTOUR INTERVAL 20 FEET  
 DOTTED LINES REPRESENT HALF-INTERVAL CONTOURS  
 DATUM IS MEAN SEA LEVEL

AND 1967 MAGNETIC NORTH  
 NATIONAL AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242  
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

